

REMARKS

In response to the Official Action mailed May 1, 2007, Applicant respectfully requests reconsideration, reexamination and allowance of claims 1-35 in view of the above amendments and following remarks.

Claims 1, 22 and 24 have been amended to more clearly define the present invention; no new matter has been added. Applicant has added claim 35, which mirrors the scope of original claim 9 and therefore adds no new matter. Applicant notes, with respect to the objections to the informal drawings filed with the application that formal drawings were filed on September 7, 2001 and should be in the file of the present application. The Examiner's attention is directed to the correspondence including a response to missing parts for the formal drawings. Applicant has corrected some minor errors in the specification as suggested by the Examiner. Applicant appreciates the opportunity to effect these corrections.

The present invention is a device and method that is used to identify the presence or absence of the wideband spectrum (power-line noise) created by a spark-gap device (fractured high-intensity power-line insulator, for example), radiated into free-space and subsequently interfering with the ability to properly quantify illegal RF signals emitted by coaxially constructed cable television plants. Searching for and quantifying the amplitude of the television carrier after being very significantly attenuated by normal shielding properties and normal propagation properties requires specially designed receiving apparatus with very narrow bandwidth properties and a good deal of sensitivity. RF electrical energy such as that created by and subsequent propagated into free-space by the point-source spark-gap inadvertent transmitter is a source of confusion and aggravation in the integrity flaw isolation process. Its presence causes erroneous readings and forces unwarranted follow-on servicing.

The amplitude of undesired broadband power-line energy, infiltrating a co-axial cable system most often overpowers the vastly attenuated desired television carrier making accurate amplitude quantification impractical, registering, rather, the amplitude of the interfering power-line signal amplitude. Sideband energy contained within the television carrier is significantly lower in amplitude than is the carrier amplitude itself; and therefore provides an excellent source of information as used in the device and method of the present invention.

In the use of the present method and device, the very narrowband receiver is tuned to a desired visual carrier center frequency spectral location to obtain its amplitude. Note is made of

the amplitude and then the very narrowband receiver is tuned to an alternate location within the same channel allocation but at a location where sideband energy should be reduced. The two amplitudes are then compared, and if the sideband energy of the second amplitude is reduced, compared to the first, the probability is high that the signal is indeed a television signal and, thus, the desired signal (there is no interference). Otherwise, if the quantified amplitudes at tuned location one (the television carrier location) and totally independent tuned location two (the offset) are similar, the probability of influence from unwanted electrical energy is high.

The device and method therefore use the same television channel allocation, executing a momentary off-set, to allow the determination as to whether an undesired signal has been picked-up and/or if signal is leaking. This is not shown in the cited references or in the prior art generally.

The Office Action has rejected claims 1-7, 9-10, 12-18, 21, 24-26 and 28-32 under 35 U.S.C § 102(e) as being anticipated by Bush et al (U.S. Patent No. 6,804,826).

Bush teaches that the two distinct frequency or frequency groups can be isolated by a radio receiver, first and most importantly, fix-tuned to a single specific spectral location, the resulting recovered signal containing the second frequency or group of frequencies by way of modulation onto the first frequency and secondarily taking specific action relative to characteristics of the signal recovered by the subsequent demodulation process.

In practice, a device created by the teachings of Bush et al. would simply superimpose an amplitude modulation onto an RF envelope which has also been modulated by normal NTSC television video. A receiver tunes to the RF carrier spectral center frequency and with circuit elements designed to do so, extracts the parasite signal. Specific action(s) result, therefore, depending upon the presence or absence thereof of the parasite signal.

In the commercially produced embodiment of the Bush et al. patent, which has been studied by the Applicant and appears to be made in accordance with the teachings of the Bush et al. patent, an operation identical to an AM radio station is revealed; the device modulates onto a RF envelope a 10 Hz signal. The only difference being the input RF envelope already contains NTSC television modulation therefore the entire complex envelope receives further intelligence in the form of the 10 Hz parasite. Of significance, the television visual spectral frequency group is easily discernable from the 10 Hz signal since no 10 Hz component exists within normally transmitted NTSC television signaling.

With respect to the individual rejections in the Office Action, applicant notes that the device of the Bush et al. patent, shown in Figure 8, does not function in the manner suggested by the present invention as presently amended. Specifically, Bush et al. does not teach the use of alternate, independently tuned RF carrier frequencies within predetermined spectra to determine, on its own, identification of the incursion or leakage of cable television signal rather than falsely identifying wideband noise as a source of concern. Instead, Bush et al. teaches the taking of a first and second signal which are then modulated and compared. Applicant notes that Bush et al. does not teach the invention shown in any of the independent claims as now amended and therefore cannot teach the inventions of the claims dependent thereon.

The Office Action has rejected claims 8, 11, 10-20, 22-23, 27 and 33-34 under 35 U.S.C. § 103 as being unpatentable over Bush et al. in view of Ostteen et al. (U.S. Patent No. 5,294,937). Applicant disagrees with the Office Action's reliance on Ostteen et al. to cover all of the limitations not covered by Bush et al. First, Bush et al., as noted above, does not teach the invention shown in the independent claims; second, the addition of Ostteen et al., which is a signal measurement device that uses signal strength and geographic location to determine leakage, does not provide the necessary teaching to overcome the deficits of Bush et al. with respect to the independent claims. In deed, the Office Action does not show the use of Ostteen et al. in its rejection of the independent claims. As such, the claims of the present invention are not made obvious by the combination of Bush et al. and Ostteen et al.

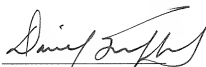
The combination of Bush et al. and Ostteen et al. could not produce the invention of the present application, even if there was some motivation to combining the references (which do similar tasks so as not to need combining). It would not, therefore, be obvious to a person having ordinary skill in the art, to combine these references to arrive at the device and method of the present invention.

Applicant respectfully request continued examination and allowance of the pending claims. Applicant encloses herewith a petition for a one month extension of time in which to file this response as well as authorizing the payment of the fee by deposit account (No. 23-0920). Further, Applicant has authorized the payment of an additional claim through the above noted deposit account. It is believed that no other fee is needed, however, should it be determined that any fees are necessary the Commissioner is hereby authorized to charge any additional fee which may be required for this application under 37 C.F.R. §§ 1.16-1.18, including but not limited to

the issue fee, or credit any overpayment, to Deposit Account No. 23-0920. Further, should any other petition be required with respect to this reply and amendment, the Commissioner is respectfully requested to treat this paper as the necessary petition or petitions and to charge the petition fee(s) to the above noted deposit account.

Applicant suggests that the claims are in condition for allowance and respectfully requests an early notice of allowance. If the Examiner finds that there are any outstanding issues that may be resolved by a telephone interview, he is invited to contact the undersigned at the below listed number.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Daniel M. Gurfinkel", written over a horizontal line.

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